

## CLAIMS

What is Claimed Is:

- 1        1. A method of recording compatibility information on a recording medium,  
2 comprising:
  - 3                providing a physical format information zone having a reserved zone; and  
4                recording extended part version information in the reserved zone of the physical  
5 format information zone.
  
- 1        2. The method of claim 1, wherein the recording of the extended part version  
information further comprises recording a detailed extended part version in the reserved zone.
  
- 1        3. The method of claim 2, wherein the recording of the extended part version  
information further comprises recording a latest part version having recording compatibility  
with a recording/reproducing apparatus of a given specification level in the reserved zone.
  
- 1        4. The method of claim 3, wherein the recording of the extended part version  
information further comprises recording a latest part version having reproducing compatibility  
with the recording/reproducing apparatus in the reserved zone.
  
- 1        5. The method of claim 4, wherein the recording of the detailed extended part version,  
2 the recording of the latest part version having recording compatibility with the  
3 recording/reproducing apparatus, and the recording of the latest part version having  
4 reproducing compatibility with the recording/reproducing apparatus, each further comprise  
5 recording an integer part and a first decimal place in the reserved zone.

1       6. The method of claim 5, wherein the recording of the detailed extended part version,  
2 the recording of the latest part version having recording compatibility with the  
3 recording/reproducing apparatus, and the recording of the latest part version having  
4 reproducing compatibility with the recording/reproducing apparatus each further comprise  
5 recording a second decimal place immediately after the first decimal place.

1       7. The method of claim 6, further comprising recording said integer part, said first  
2 decimal place, and said second decimal place in the form of n.xy.

1       8. The method of claim 7, wherein n represents a specification change, x represents a  
2 specification change having no compatibility with the recording/reproducing apparatus, and y  
3 represents a minor change having recording/reproducing compatibility with the  
4 recording/reproducing apparatus.

1       9. The method of claim 8, further comprising recording non-extended part version  
2 information in an unreserved zone of the physical format information zone, wherein said  
3 non-extended part version information indicates that the extended part version information is  
4 recorded in a different location.

1       10. A recording medium comprising:  
2           a physical format information zone having a reserved zone; and  
3           extended part version information in the reserved zone of said physical format  
4           information zone.

1       11. The recording medium of claim 10, wherein said extended part version information  
2 further comprises a detailed extended part version.

1           12. The recording medium of claim 11, wherein said extended part version information  
2 further comprises a latest part version having recording compatibility with a  
3 recording/reproducing apparatus of a given specification level.

1           13. The recording medium of claim 12, wherein said extended part version information  
2 further comprises a latest part version having reproducing compatibility with the  
3 recording/reproducing apparatus.

1           14. The recording medium of claim 13, wherein said detailed extended part version,  
2 said latest part version having recording compatibility with the recording/reproducing  
3 apparatus, and said latest part version having reproducing compatibility with the  
4 recording/reproducing apparatus each further comprise an integer part and a first decimal  
5 place.

1           15. The recording medium of claim 14, wherein said detailed extended part version,  
2 said latest part version having recording compatibility with the recording/reproducing  
3 apparatus, and said latest part version having reproducing compatibility with the  
4 recording/reproducing apparatus each further comprise a second decimal place immediately  
5 after said first decimal place.

1           16. The recording medium of claim 15, wherein said integer part, said first decimal  
2 place and said second decimal place are in the format n.xy.

1           17. The recording medium of claim 16, wherein n represents a specification change, x  
2 represents a specification change having no compatibility with the recording/reproducing

3       apparatus, and y represents a minor change having recording/ reproducing compatibility with  
4       the recording/reproducing apparatus.

1           18. The recording medium of claim 17, wherein said reserved zone is 6 bytes in size,  
2       and said detailed extended part version, said latest part version having recording compatibility  
3       with the recording/reproducing apparatus, and said latest part version having reproducing  
4       compatibility with the recording/reproducing apparatus, are each 2 bytes in size.

1           19. The recording medium of claim 18, wherein said integer part, said first decimal  
2       place and said second decimal place are each 4 bits in size.  
3  
4  
5

1           20. The recording medium of claim 19, wherein said physical format information zone  
2       further comprises an unreserved part version zone 4 bits in size, wherein said unreserved part  
3       version zone is located at a byte position 0 of said physical format information zone, and said  
4       reserved zone of said physical format information zone is located at a byte position 17 through  
5       a byte position 22 of said physical format information zone.

1           21. The recording medium of claim 20, wherein said detailed extended part version is  
2       located at said byte position 17 through a byte position 18 of said physical format information  
3       zone, said latest part version having recording compatibility with the recording/reproducing  
4       apparatus is located at a byte position 19 through a byte position 20 of said physical format  
5       information zone, and said latest part version having reproducing compatibility with the  
6       recording/reproducing apparatus is located at a byte position 21 through said byte position 22  
7       of said physical format information zone.

1           22. The recording medium of claim 21, wherein said integer part is located at a bit 8  
2 through a bit 11 of said byte positions 17 through 22 of said physical format information zone,  
3 said first decimal place is located at a bit 4 through a bit 7 of byte positions 17 through 22 of  
4 said physical format information zone, and said second decimal place is located at a bit 0  
5 through a bit 3 of byte positions 17 through 22 of said physical format information zone.

1           23. The recording medium of claim 22, wherein the recording medium is a digital  
2 versatile disc (DVD).

1           24. A method of determining compatibility between a recording medium and a  
2 recording/reproducing apparatus, comprising:

3                 installing said recording medium in said recording/reproducing apparatus;  
4                 comparing a base part version of the recording/reproducing apparatus with a  
5 detailed extended part version stored in a reserved zone of a physical format information zone  
6 of said recording medium; and

7                 determining recording compatibility based upon said step of comparing said base  
8 part version with said detailed extended part version.

1           25. A method of determining compatibility between a reproducing medium and a  
2 recording/reproducing apparatus, comprising:

3                 installing said reproducing medium in said recording/reproducing apparatus;  
4                 comparing a base part version of the recording/reproducing apparatus with a  
5 detailed extended part version stored in a reserved zone of a physical format information zone  
6 of said reproducing medium; and

7                 determining reproducing compatibility based upon said step of comparing said  
8 base part version with said detailed extended part version.

1           26. The method of claim 24, wherein said comparing of said base part version with  
2 said detailed extended part version further comprises comparing said base part version with a  
3 latest part version having recording compatibility with the recording/reproducing apparatus  
4 stored in said reserved zone.

5           27. The method of claim 26, further comprising:

6                 comparing said base part version with a latest part version having reproducing  
7 compatibility with the recording/reproducing apparatus stored in said reserved zone; and

8                 determining a reproducing compatibility between the recording medium and the  
9 recording/reproducing apparatus based upon said step of comparing said base part version with  
10 said latest part version having reproducing compatibility with the recording/reproducing  
11 apparatus.

1           28. The method of claim 27, wherein said reserved zone is 6 bytes in size, and said  
2 detailed extended part version, said latest part version having recording compatibility with the  
3 recording/reproducing apparatus, and said latest part version having reproducing compatibility  
4 with the recording/reproducing apparatus are each in the form of n.xy, wherein n represents a  
5 specification change, x represents a specification change having no compatibility with the  
6 recording/reproducing apparatus with the recording/reproducing apparatus, and y represents a  
7 minor change having recording/reproducing compatibility with the recording/reproducing  
8 apparatus.

1           29. The method of claim 28, wherein said reserved zone is located at a byte position  
2 17 through a byte position 22 of said recording medium.

1        30. The method of claim 27, wherein if the determining of the recording compatibility  
2 indicates that there is recording compatibility, then recording is permitted, and if the  
3 determining of the recording compatibility indicates that there is not recording compatibility,  
4 then recording is prohibited;

5                and if the determining of the reproducing compatibility indicates that there is  
6 reproducing compatibility, then the reproducing is permitted, and if the determining of the  
7 reproducing compatibility indicates that there is not reproducing compatibility, then  
8 reproducing is prohibited.

1        31. A recording/reproducing apparatus, comprising:  
2                a control unit to record extended part version information in a reserved zone of  
3 a physical format information zone of a recording medium, and  
4                a reading unit to read the extended part version information from the recording  
5 medium.

1        32. The recording/reproducing apparatus of claim 31, wherein the extended part  
2 version information comprises a detailed extended part version.

1        33. The recording/reproducing apparatus of claim 32, wherein the extended part  
2 version information further comprises a latest part version having recording compatibility with  
3 the recording/reproducing apparatus in the reserved zone.

1        34. The recording/reproducing apparatus of claim 33, wherein the extended part  
2 version comprises a latest part version having reproducing compatibility with the  
3 recording/reproducing apparatus.

1           35. The recording/reproducing apparatus of claim 34, wherein the extended part  
2 version information in the reserved zone comprises an integer part and a first decimal place.

1           36. The recording/reproducing apparatus of claim 35, wherein the extended part  
2 version information in the reserved zone comprises a second decimal place immediately after  
3 said first decimal place.

1           37. The recording/reproducing apparatus of claim 36, wherein the control means  
2 records said integer part, said first decimal place, and said second decimal place in the form  
3 n.xy.

1           38. The recording/reproducing apparatus of claim 37, wherein n represents a  
2 specification change, x represents a specification change having no compatibility with the  
3 recording/reproducing apparatus, and y represents a minor change having  
4 recording/reproducing compatibility with the recording/reproducing apparatus.

1           39. A recording/reproducing apparatus having a base part version that receives a  
2 recording medium having a detailed extended part version stored in a reserved zone of a  
3 physical format information zone, comprising:

4           a reading unit to read the detailed extended part version from the recording medium;  
5 and

6           a comparing unit to compare the base part version with the detailed extended part  
7 version in the reserved zone of said recording medium, said comparing unit further determines  
8 recording compatibility between the recording/reproducing apparatus and the recording  
9 medium based upon the comparing of the base part version and the detailed extended part  
10 version.

1           40. A recording/reproducing apparatus having a base part version that receives a  
2 recording medium having a detailed extended part version stored in a reserved zone of a  
3 physical format information zone, comprising:

4                 a reading unit to read the detailed extended part version from the recording  
5 medium; and

6                 a comparing unit to compare the base part version with the detailed extended  
7 part version in the reserved zone of said recording medium, said comparing unit further  
8 determines reproducing compatibility between the recording/reproducing apparatus and the  
9 recording medium based upon the comparing of the base part version and the detailed extended  
10 part version.

1           41. The recording/reproducing apparatus of claim 40, wherein said detailed extended  
2 part version further comprises a latest part version having recording compatibility, and the  
3 comparing unit compares said base part version with said detailed extended part version by  
4 comparing said base part version with the latest part version having recording compatibility  
5 with the recording/reproducing apparatus stored in said reserved zone.

1           42. The recording/reproducing apparatus of claim 41, wherein said detailed extended  
2 part version further comprises a latest part version having reproducing compatibility with the  
3 recording/reproducing apparatus, and the comparing unit determines reproducing compatibility  
4 between the recording/reproducing apparatus and the recording medium based upon comparing  
5 of the base part version and the latest part version having reproducing compatibility.

1           43. The recording/reproducing apparatus of claim 42, wherein if the base part version  
2 of the recording/reproducing apparatus is a version prior to the latest part version having

3 recording compatibility with a recording/reproducing apparatus, then writing is prohibited, and  
4 if the base part version of the recording/reproducing apparatus is a version later than the latest  
5 part version having recording compatibility with the recording/reproducing apparatus, then  
6 recording and updating can be performed.

1           44. The recording/reproducing apparatus of claim 43, wherein said detailed extended  
2 part version, said latest part version having recording compatibility, and said latest part version  
3 having reproducing compatibility are each in the form of n.xy, wherein n represents a  
4 specification change, x represents a specification change having no compatibility with a  
5 recording/reproducing apparatus, and y represents a minor change having  
6 recording/reproducing compatibility with a recording/reproducing apparatus.

1           45. An optical disc having extended part version information stored thereon, wherein  
2 the extended part version information is used to determine in a recording/reproducing  
3 apparatus whether recording/updating or reproducing can be performed on the recording  
4 medium which is made in compliance with a newly revised specification.

1           46. A recording medium having an updated specification which maintains  
2 recording/updating compatibility with a recording/reproducing apparatus, said recording  
3 medium further comprising a latest part version which maintains reproducing compatibility  
4 with said recording/reproducing apparatus, wherein said part version is recorded on said  
5 recording medium having an updated specification such that data is recordable/updatable or  
6 reproducible by a recording/reproducing apparatus having an existing specification.